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SUGGESTED MOISTURE RANGES FOR HARVESTING AND STORING FARM CROPS

by

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Soil Conservationists should have a background knowledge of the factors associated with modern forage storage and utilization. This is especially true if the crop is new to the farmers being assisted with the development or revision of conservation plans.

The chart on the reverse side indicates information on moisture content of crops at time of harvest. One of the principal changes in the past few years is the introduction and use of sealed storages. They make possible the successful storage and processing of forages with variable and lower moisture content than that formerly found desirable for optimum compaction to exclude oxygen in other types of silage storages. Since oxygen cannot come in contact with the silage, mold growth and other forms of deterioration are held to a low level.

If crops are too high in moisture when ensiling, they may not warm up enough to make good silage. Often, bad odor is a symptom. They lose 10% or more of feed value in seepage. When too dry, the compaction is insufficient to exclude oxygen, except in sealed storages. High temperature, browning, mold and very acid odor are clues. Decline in palatability and nutrient values usually accompany these conditions.

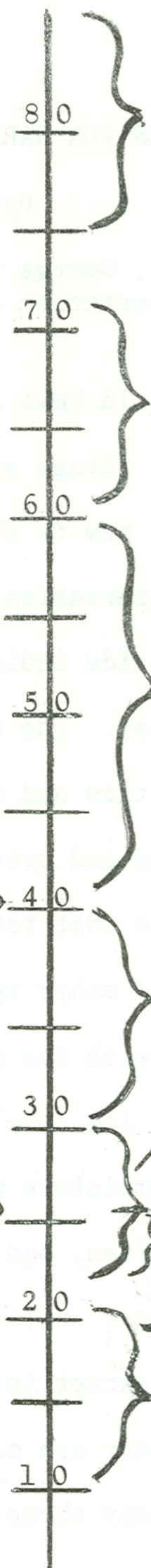
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Water %



If untreated, crops this wet make poor silage and leak badly. Satisfactory silage may be made by partly drying, by mixing with drier materials or by using preservatives. This is usual range of crops used in zero grazing when cut at best stage.

Best stage for silage. No drying needed. Packs well. Makes good silage with or without preservatives.

Too dry for conventional silage; too wet for hay. 35% to 50% is ideal for haylage in sealed storage.

Hay up to 40% moisture or more can be stored safely in mows equipped with forced air drying systems.

Hay stored at this moisture content may heat and brown.

Safe range for storing long hay in ordinary mow.

Proper moisture range (20%-25%) for putting up chopped hay.

Proper moisture range (18%-23%) for baling hay from the windrow.

Shattering and loss of leaves occur in putting up hay made in this moisture range.

Corn should not be cut and shocked until the kernels are below 40% moisture. The farm operator who cuts corn at a higher moisture content takes a severe loss in yield.

Ear corn may be cribbed when the kernels are below 25% moisture. The closer the moisture content is to this maximum limit, the more ventilation required.

Small grains should not be combined for storage in bins until the moisture content of the grain has fallen to 14% or less.

Seed corn will be safe from damage by freezing or molding if it has been dried to 14% moisture or less.

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